AMENDMENTS TO THE SPECIFICATION:

Page 1, please add the following new paragraphs before paragraph [0001]:

[0000.2] CROSS-REFERENCE TO RELATED APPLICATIONS

[0000.4] This application is a 35 USC 371 application of PCT/DE 2004/002551 filed on November 19, 2004.

Please replace paragraph [0001] with the following amended paragraph:

[0001] ~~Specification~~ **BACKGROUND OF THE INVENTION**

Please replace paragraph [0002] with the following amended paragraph:

[0002] ~~Prior Art~~ **Field of the Invention**

Please replace paragraph [0003] with the following amended paragraph:

[0003] The invention relates to [[a]] **an improved** self-boosting electromechanical friction brake ~~having the characteristics of the preamble to claim 1~~ **for a motor vehicle**.

Please add the following new paragraph after paragraph [0003]:

[0003.5] Description of the Prior Art

Please replace paragraph [0004] with the following amended paragraph:

[0004] One [[such]] friction brake **of the type with which this invention is concerned** is known from International Patent Disclosure WO 03/056204 A1. The known friction brake is embodied as a disk brake[[.]] [[It]] **and** has a friction brake lining, which for braking can be pressed by an electromechanical actuation device against a brake body to be braked; in the case of a disk brake, the brake body is a brake disk. The actuation device of the known friction brake has an electric motor, a step-down gear, and a screw drive as a rotation/translation conversion gear. With the actuation device, the friction brake lining can

be moved transversely or at an angle obliquely to the brake disk and thus pressed against it. The construction of the actuation device can differ from the construction described here.

Please replace paragraph [0005] with the following amended paragraph:

[0005] To attain self-boosting, the known friction brake has a ramp mechanism, with a ramp extending at an angle to the brake disk, on which ramp the friction brake lining is braced upon being pressed against the brake disk. If in braking the friction brake lining is pressed against the rotating brake disk, then the brake disk exerts a frictional force on the friction brake lining, which urges the friction brake lining in the direction of an increasingly narrow wedge-shaped gap between the ramp that supports the friction brake lining and the brake disk. The bracing of the friction brake lining on the ramp, extending obliquely to the brake disk, of the ramp mechanism exerts a force on the friction brake lining that has a force component transverse to the brake disk. This force component transverse to the brake disk is a contact pressure, which presses the friction brake lining against the brake disk. The contact pressure exerted by the ramp mechanism increases [[a]] contact pressure exerted by the actuating device and thus increases a braking force of the friction brake. This increasing of the contact pressure and braking force is called self boosting.

Page 3, please replace paragraph [0009] with the following amended paragraph:

[0009] If the friction brake lining of the known friction brake is pushed back and forth for braking and for releasing the brake, the roller bodies ideally roll along the raceways, and they are in their original position when the friction brake lining is also in its original position again. This is not true if in a self-boosting friction brake, to compensate for wear, the friction

brake lining is not restored entirely. The "wandering away" **or creeping** described below of the roller bodies occurs nevertheless. It cannot be precluded that the roller bodies will not merely roll but will also slide on their raceways when the friction brake lining is pushed back and forth. In that case, the roller bodies no longer return to their original position. When the friction brake lining has been pushed back and forth many times, the roller bodies can ~~"wander away"~~ **creep** farther and farther from their outset position.

Page 4, please replace paragraph [0010] with the following amended paragraph:

[0010] ~~Summary and Advantages of the Invention~~

SUMMARY AND ADVANTAGES OF THE INVENTION

Please replace paragraph [0011] with the following amended paragraph:

[0011] In the friction brake of the invention ~~as defined by the characteristics of claim 1~~, the roller bodies are supported fixedly and rotatably. Per roller body, there is only one ramp on which the roller body rolls. An associated second ramp, which is located diametrically opposite the first ramp and on which the roller body also **normally** rolls, the roller body being located between the two ramps, is dispensed with because of the rotatable support in accordance with the invention of the roller body. However, two and theoretically even more roller bodies per ramp are also possible. The rotatable support of the roller body has the advantage that the roller body is held fixedly and cannot ~~wander~~ **creep** away from its position. The location of the roller body is permanently determined by its rotational support. Unwanted ~~"wandering"~~ **creeping** of the roller body in the direction of one end of the ramp from sliding on the ramp is precluded. Even if the roller body can slide on the ramp, it cannot

move away from its position defined by the rotational support. Another advantage of the invention is that per roller body, only one ramp has to be hardened, since there is only one ramp per roller body. An additional advantage is that the ramp of the ramp mechanism, for the same displacement travel of the friction brake lining, is approximately twice as long as two associated, diametrically opposed ramps on both of which one roller body rolls. This makes the demands for manufacturing tolerances less stringent, and changes in the ramp angle can be achieved more simply and precisely by way of the length of the ramp. With a change in the ramp angle over the length of the ramp, the magnitude of the self boosting can be varied as a function of the displacement travel of the friction brake lining and thus as a function of an actuation and braking force. By means of a large ramp angle at the beginning of the ramp, for instance, and at the onset of the displacement of the friction brake lining, a high positioning speed of the friction brake lining transversely to the brake disk can be achieved, and by means of a small ramp angle at the end of the ramp, high self boosting with high braking force can be achieved.

Page 5, please delete paragraph [0012].

Please replace paragraph [0013] with the following amended paragraph:

[0013] The roller bodies of the ramp mechanism can be supported rotatably and fixedly on a stationary abutment of the ramp mechanism ~~(claim 2)~~. The abutment is for instance fixedly located in a brake caliper; the ramps are located on the back side, facing away from the brake disk, of the friction brake lining. ~~Claim 3 conversely provides that~~ **Conversely** the roller bodies [[are]] **may be** supported fixedly and rotatably on the friction brake lining; in this

case, the ramps are located for instance on an abutment. In this embodiment of the invention, the roller bodies are stationary relative to the friction brake lining; that is, they do not move with the friction brake lining when the friction brake lining is moved for actuation of the brake. This embodiment of the invention is favored over the preceding one because the bracing of the friction brake lining via the roller bodies on the ramps does not shift relative to the friction brake lining upon actuation of the friction brake; that is, the bracing of the friction brake lining always occurs at the same places.

Page 6, please replace paragraph [0014] with the following amended paragraph:

[0014] ~~Claim 4~~ **One embodiment** provides that an imaginary straight line extending at the ramp angle, that is, perpendicular to the ramp, through an axis of rotation of a roller body intersects a surface of the friction brake lining, oriented toward the brake body, inside the surface of the friction brake lining. The intersection point ~~defined in claim 4~~ of the imaginary straight line and the surface of the friction brake lining is the place where the bracing of the friction brake lining by the roller body is operative. Because of the ramp angle of the ramp, the bracing point is not vertical to the friction brake lining below the roller body but rather offset from this as a function of the ramp angle. The point where the bracing of the friction brake lining or the roller body is operative should according to ~~claim 4~~ **this embodiment** be located inside the surface of the friction brake lining oriented toward the brake body.

Please replace paragraph [0015] with the following amended paragraph:

[0015] ~~Claim 5~~ **Another feature** provides a transverse inclination of the axes of rotation of the roller bodies and the ramps on which the roller bodies roll and on which the roller bodies are braced, transversely to a displacement direction of the friction brake lining and to a circumferential direction of the brake body. The transverse inclination should be selected such that the roller bodies brace the friction brake lining centrally to an imaginary circular circumferential line that divides the surface, oriented toward the brake body, of the friction brake lining into two faces of at least approximately equal size. A center of the imaginary circular circumferential line is then located on the axis of rotation of the brake body. Radially inner and radially outer ramps have contrary transverse inclinations, and the transverse inclination angles may differ. If more roller bodies are located inside the imaginary circumferential line than outside it, then their transverse inclination and/or their spacing from the imaginary circumferential center line is less, and vice versa. The friction brake lining is braced centrally to the circumferential center line, and guidance of the friction brake lining transversely to its displacement direction, that is, radially to a brake disk, is brought about. The transverse inclination angles are preferably selected such that the result, at least approximately, is a transverse or radial equalization of force.

Page 7, please replace paragraph [0016] with the following amended paragraph:

[0016] For reducing friction and wear, ~~claim 6 provides~~ a roller bearing **may be provided by** [[of]] the roller bodies themselves ~~as well~~. ~~According to claim 7, roller~~ **Roller** bearings of the roller bodies can be located in bearing pockets, that is, in indentations that are

complementary to the roller bearings and that are made on the back side, facing away from the brake body, of the friction brake lining or in the stationary abutment.

Please replace paragraph [0017] with the following amended paragraph:

[0017] ~~Claim 8~~ **One embodiment** provides an offset of the roller bodies in the circumferential direction of the brake body or in the displacement direction of the friction brake lining. The offset should be selected such that the roller bodies brace the friction brake lining centrally to an imaginary center line, extending radially to the brake body or transversely to the displacement direction of the friction brake lining, that divides the surface, oriented toward the brake body, of the friction brake lining into two faces of approximately equal size. As a result, the friction brake lining is braced centrally to its displacement direction; the ramp inclination is compensated for. This embodiment of the invention corresponds to [[the]] **an** embodiment discussed above ~~in conjunction with claim 5, but in two different directions. While claim 5 pertains~~ **pertaining** to a transverse direction to the displacement direction of the friction brake lining, ~~claim 8~~ **while this embodiment** is directed to the longitudinal or displacement direction.

Page 8, please replace paragraph [0018] with the following amended paragraph:

[0018] ~~Drawing~~ **BRIEF DESCRIPTION OF THE DRAWINGS**

Please replace paragraph [0019] with the following amended paragraph:

[0019] The invention is described ~~below in terms of exemplary embodiments shown in the drawing. Shown are~~ **more fully herein below, in conjunction with the drawings, in which**:

Please replace paragraph [0020] with the following amended paragraph:

[0020] Fig. 1[[,]] **is** a **simplified** schematic perspective view of a self-boosting electromechanical friction brake of the invention;

Please delete paragraph [0024].

Page 9, please replace paragraph [0025] with the following amended paragraph:

[0025] ~~Description of the Exemplary Embodiments~~

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Page 10, please replace paragraph [0030] with the following amended paragraph:

[0030] The abutment plate 26 is approximately coincident with the brake lining holder plate 20, on the back side of that plate facing away from the brake disk 16. In Fig. 1, the abutment plate 26 is shown ~~hinged~~ **rotated** upward, to make the ramps 28 and the roller bodies 24 visible. In actuality, the abutment plate 26 is located parallel to the friction brake linings 12, 14 of the brake disk 16 and the brake lining holder plate 20. The abutment plate [[24]] **26** is located fixedly, that is, immovably, in the part of the brake caliper 18, not shown, that fits over the brake lining holder plate 20 on its back side facing away from the brake disk 16. This part of the brake caliper 18 that is not shown is located above the brake disk 16 and above the brake lining holder plate 20 in Fig. 1. The brake caliper 18 is embodied as a so-called floating caliper; that is, it is displaceable transversely to the brake disk 16. When the movable friction brake lining 14 is pressed against the brake disk 16, the brake caliper 18 is displaced transversely to the brake disk 16 and presses the fixed friction brake lining 12

against the other side of the brake disk 16, so that the brake disk 16 is braked by both friction brake linings 12, 14.

Page 12, please replace paragraph [0033] with the following amended paragraph:

[0033] In the exemplary embodiment shown, three roller bodies 24 are disposed on the brake lining holder plate 20, and three ramps 28 are disposed on the abutment plate 26. This produces a statically **balanced or** determined bracing of the friction brake lining 14. A statically overdetermined bracing with more than three roller bodies 24 and ramps 28 is conceivable. Fewer than three roller bodies 24 and ramps 28 are also possible, for instance if two roller bodies 24 and two ramps 28 extend (not shown) over a **substantial** width of the brake lining holder plate 20.

Page 14, please replace paragraph [0037] with the following amended paragraph:

[0037] Fig. 3 shows one radially inner and one radially outer roller body 24. It can readily be seen that the roller bodies 24 are inclined transversely to the displacement direction of the friction brake lining 14. The radially inner roller bodies 24 are inclined oppositely to a radially outer roller body 24, which is located between the radially inner roller bodies 24 in the circumferential direction. The ramps 28 have the same transverse inclination as the respective associated roller body 24. The transverse inclination angle β of the radially inner roller bodies 24 are the same, but a transverse inclination angle β of the radially outer roller body 24 is greater, so that shear forces compensate for one another. The transverse inclination **angle** β of the roller bodies 24 and of the ramps 28 effects a guidance of the

friction brake lining 14 transversely to its displacement direction, or in other words radially to the brake disk 16. Because of the bracing of the friction brake lining 14 with three roller bodies 24 and three ramps 28, which are located at the corners of an imaginary triangle, a statically determined bracing and guidance of the friction brake lining 14 transversely to its displacement direction and radially to the brake disk 16 is obtained. The transverse inclination of the ramps 28 and of the roller bodies 24 is selected such that they brace the friction brake lining 14 centrally to an imaginary circular circumferential line whose center is located on the axis of rotation of the brake disk 16.

Page 15, please replace paragraph [0038] with the following amended paragraph:

[0038] Figs. 4 through 7 show various exemplary embodiments of roller bearings, according to the invention, [[of]] **which support** the roller bodies 24. Axial sections of the roller bodies 24 are shown in the sectional plane that is angled and is represented by the line IV-IV in Fig. 2. In the exemplary embodiment shown in Fig. [[3]] **4**, the roller body 24 is a cylindrical roller with journals 42, axially protruding on both sides, which are supported rotatably by needle bearings 44 in the bearing blocks 22 of the brake lining holder plate 20. The ramp 28 on which the roller body 24 rolls is narrower than a spacing of the two bearing blocks 22 from one another; the ramp 28 reaches between the bearing blocks 22.

Please replace paragraph [0039] with the following amended paragraph:

[0039] In the exemplary embodiment shown in Fig. 5, a dowel, for instance, is press-fitted as a shaft 46 into the two bearing blocks 22. On the shaft 46, with a needle bearing 48, a sleeve 50 is rotatably supported and forms the roller body 24 which rolls on the ramp 28, not visible

in Fig. 5. The sleeve 50 forms an outer ring of the needle bearing [[28]] **48**. The roller bearing **support** of the roller body 24 shown in Fig. [[4]] **5** has the advantage that it makes do with comparatively few parts to be produced and with standard parts. For instance, a graduated roller body 24 is not needed.

Page 16, please replace paragraph [0040] with the following amended paragraph:

[0040] In the roller bearing **support** of the roller bodies 24 shown in Fig. 6, the back side of the brake lining holder plate 20 is provided with pockets 52, in which needle bearings 54 rest. The pockets 52 are cylindrical indentations in the brake lining holder plate 20 that have the same diameter as sleeves 56 of the needle bearings 54. The bearing blocks 22 per se are omitted. The roller body 24 is for instance a cylindrical pin, which is rotatably supported in the needle bearings 54. The ramp 28 on the abutment plate 26 is narrower than a spacing of the needle bearings 54 from one another and reaches between the needle bearings 54. This embodiment of the roller bearing of the roller body 24 can likewise be manufactured inexpensively, with parts that are simple to produce and with standard parts. No bores in bearing blocks are needed. Assembly is also simplified.

Please replace paragraph [0041] with the following amended paragraph:

[0041] In the embodiment of the roller bearing **support** of the roller bodies 24 shown in Fig. 7, once again a graduated-diameter, rollerlike roller body 24 with laterally protruding journals 58 is used, which is rotatably supported in needle bearings 60. The needle bearings 60 rest, as in Fig. [[5]] **6**, in a pocket 62 in the brake lining holder plate 20. Since because of its larger diameter in the middle region the roller body 24 keeps the needles of the needle

bearings 60 in the bearing sleeves 64, the bearing sleeves 64 need not be crimped over inward on their open inside. For the same total structural width as in the roller bearing shown in Fig. [[6]] 5, axially longer needle bearings 60 can be used, resulting in a higher load-bearing coefficient in comparison with the roller bearing shown in Fig. 6. For axial guidance of the roller body 24, the bearing sleeves 64 have inclines 66. These are inward-oriented concavities in the middle of end faces of the bearing sleeves 64.

Please add the following new paragraph after paragraph [0041]:

[0042] The foregoing relates to a preferred exemplary embodiment of the invention, it being understood that other variants and embodiments thereof are possible within the spirit and scope of the invention, the latter being defined by the appended claims.